

SPECIALIZED HEAPS FOR CREATION OF OBJECTS IN OBJECT-ORIENTED ENVIRONMENTS

ABSTRACT OF THE DISCLOSURE

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The present invention pertains to techniques for creating and maintaining objects in object-oriented environments. The techniques are especially well suited for Java programming environments. In accordance with one aspect of the invention, specialized Java heaps are disclosed. In contrast to conventional heaps, the specialized Java heap is designated for storing Java objects with similar traits in the same memory portion. As such, objects with similar traits can be allocated and maintained in a designated memory portion. Another aspect of the invention provides methods for allocating objects in the heap memory. These methods can be used to create and associate objects with similar traits in a specialized heap. As will be appreciated, objects can be created and maintained more efficiently in this manner. As a result, the performance of virtual machines, especially those operating with relatively limited resources (e.g., embedded systems), is improved.

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